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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,612	03/08/2004	Frank Inchingolo	07470-072001	1763
26161	7590	07/11/2007		
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER WAI, ERIC CHARLES	
			ART UNIT	PAPER NUMBER
			2195	
			MAIL DATE	DELIVERY MODE
			07/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/796,612	INCHINGOLO ET AL.	
	Examiner	Art Unit	
	Eric C. Wai	2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/04/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1, and 3-32 are presented for examination.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 8-12, and 19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

4. Claims 8-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to a signal directly or indirectly by claiming a medium and the Specification recites evidence where the computer readable medium is defined as a "propagated signal" (such as a carrier wave). In that event, the claims are directed to a form of energy, which at present the office feels does not fall into a category of invention. The following link on the World Wide Web is for the United States Patent And Trademark Office (USPTO) policy on 35 U.S.C. §101.

<http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf>

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5. Claim 19 recite a "system"; however, it appears that the system would reasonably be interpreted by one of ordinary skill in the art as software, per se, failing to be tangibly embodied or include any recited hardware as part of the system. Software is an equivalent means to the "system" of claim 19.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 26-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The following claims are not clearly understood:

i. Claims 26, 28, 30, and 32 recite, "relative positions". It is unclear what is meant by relative positions or how such positions are defined (i.e. relative to what?).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 3, 5, 8-10, 13-14, 16, 19-20, 22, and 25-32 are rejected under 35

U.S.C. 103(a) as being unpatentable over Bayer et al (US Pat No. 5,202,987 hereinafter Bayer) in view of Dubourreau et al (US Pat No. 5,590,335 hereinafter Dubourreau).

10. Bayer and Dubourreau were disclosed on IDS dated 03/07/2007.

11. Regarding claim 1, Bayer teaches a method for control of task execution in a computer system including:

accepting a specification of a graphical representation of task dependency having a plurality of task elements each associated with a different task (col 6 lines 52-53); and

executing the tasks according to the graphical representation of task dependency (col 6 line 49).

12. Bayer does not teach a resource element having a plurality of attachment locations, and linking elements coupling the task elements to the resource element at the plurality of attachment locations, wherein couplings of task elements to attachment locations on the resource element specify an execution ordering constraint on the tasks associated with the task elements

13. Dubourreau et al. teaches the use of graph theory to solve deadlock problems where nodes can represent tasks and resources (col 1 lines 14-40). It is well known in the art that task dependency frequently involves contention for resources. Therefore, it

would have been obvious to one of ordinary skill in the art at the time of the invention, to modify Bayer by including a resource node as taught by Dubourreau.

14. Regarding claim 3, Bayer teaches that the task elements comprise nodes in the graphical representation, and the linking elements comprise links in the graphical representation (col 6 lines 53-54).

15. Regarding claim 5, Dubourreau teaches that the resource element is associated with a computation resource for access by the tasks (col 1 lines 24-29).

16. Regarding claims 26-27, Bayer and Dubourreau do not explicitly teach that the relative positions of the plurality of attachment locations on the resource element define the ordering constraint or that the plurality of attachment locations comprises at least 3 attachment locations.

17. Bayer does teach that scheduling is a critical aspect of executing a given program and that static scheduling can be determined before program run-time (col 1 lines 28-51).

18. It would have been obvious to one of ordinary skill in the art at the time of the invention to include that the relative positions of the plurality of the plurality of attachment locations define an ordering constraint. One would be motivated by the desire to define a static scheduling policy to reduce the overhead associated with dynamic scheduling as taught by Bayer (col 1 lines 52-56).

19. Regarding claims 8-10, 13-14, 16, 19, 20, 22, 25, and 28-32, they are the computer readable medium, system, and method claims of claims 1-3, 5-7 above. Therefore, they are rejected for the same reasons as claims 1-3, 5, and 26-27 above.

20. Claims 4, 6-7, 11-12, 15, 17-18, 21, and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bayer et al (US Pat No. 5,202,987) and Dubourreau et al (US Pat No. 5,590,335), further in view of Waddington et al. (US Pat No. 5,872,981 hereinafter Waddington).

21. Waddington was disclosed on IDS dated 03/07/2007.

22. Regarding claim 4, Bayer and Dubourreau do not teach that the resource element comprises a timeline with the attachment locations being associated with points on the timeline.

23. Waddington teaches using a timeline to illustrate worker locks on a database (Fig 4, col 7 lines 1-20). It would be obvious to one of ordinary skill in the art at the time of the invention to include using a resource timeline as part of the dependency graph. One would be motivated by the desire to solve resource conflicts and avoid data corruption as taught by Waddington (col 1 lines 20-30).

24. Regarding claims 6-7, Waddington teaches that the computation resource includes a storage resource or data table (col 1 lines 37-38).

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25. Regarding claims 11-12, 15, 17-18, 21, and 23-24, they are the computer readable medium, system, and method claims of claims 4, and 6-7 above. Therefore, they are rejected for the same reasons as claims 4, and 6-7 above.

Response to Arguments

26. Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric C. Wai whose telephone number is 571-270-1012. The examiner can normally be reached on Mon-Thurs, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng - Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EW


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